

From owner-qrp-1@netcom.com Thu Feb 2 14:39:11 1995
Date: Thu, 2 Feb 1995 9:24:56 -0500 (EST)
From: JEVERHART@cayman.vf.ge.com
Message-Id: <950202092456.22418a93@cayman.vf.ge.com>
Subject: RE: 100 kHz Watch Xtal Update

Larry, you wrote:

> As you may recall, I posted a note recently about the possibility of using
> tiny (6mm x 2mm) watch-style 100 kHz crystals for a "band edge calibrator".
> Well, the xtals I ordered arrived and I tried one in the op-amp oscillator
> circuit shown in the ARRL handbook as part of a 100/50/25 kHz marker unit.
> Worked great! I used an LF412 dual op-amp. The oscillator section has a
> 47K resistor between output and (+)input, 100 K between output and (-)
> input. Xtal goes from (+) input to a 5-20 pf trimmer to ground. Oscillator
> output goes directly to next op-amp input to produce a (more-or-less) square
> wave output. Both op-amp (+) inputs are biased at 1/2 the supply voltage
> with 100K resistors (I used a 9V supply).
>
> The little xtal seems to have a larger temperature coefficient than standard
> xtals, but it is certainly good enough for this application. I let it run
> overnight and it drifted less than 1 Hz (my frequency counter showed a drift
> of -0.4 Hz, but I don't trust it to better than +/- 0.25 Hz). The trimmer
> cap "rubbers" the frequency +/- about 2 Hz.
>
> The price is certainly right -- \$1.44 in single quantities from Digi-Key.
>
> Note: my original posting stated that these xtals were available for
> frequencies between 20 kHz and 60 kHz -- sould 'a been 20 kHz to 60 MHz!

Looks good! I think this oscillator circuit is fine. In the watch world, we used cmos gates with a large resistor in series with the crystal to limit the drive current. If you overdrive them, strange things can happen. The most benign is oscillation in undesired modes. The worst is damage to the fragile crystal. Even slight overdrive can result in heating and its attendant drift.

The crstals under several hundred KHz have either tuning fork or bar type internal quartz elements. Up in the MHz region, I have no idea what structure they have. Naturally, they probably have quite different thermal and electrical characteristics than the AT cut crystals we are familiar with. It really wouldn't be too much effort to characterize them. The articles that Les Hayward, W7ZOI wrote in QST on simple crystal filters had a good test circuit and measuring techniques. With the tiny crystals you mentioned and some surface mount capacitors you could probably build a filter in less space that a single HC-18 crystal occupies!

72/73 and good lkuck,

Joe E. N2CX

From owner-qrp-l@netcom.com Thu Feb 2 07:49:26 1995
Date: Thu, 2 Feb 1995 09:42:49 +0000 (GMT)
From: Malcolm Austen <malcolm.austen@computing-services.oxford.ac.uk>
Subject: 8044.ps - ftp East of Atlantic
Message-Id: <Pine.OSF.3.91.950202093322.24217I@sable.ox.ac.uk>

Since transatlantic ftp can be slow (depends on how small the hours are when you try it 8-) ...

I have put 8044.ps up for anonymous ftp from sable.ox.ac.uk
in the directory `pub/users/malcolm/radio`

The file 8044.ps is big (1.23 Mbyte) - unix users may prefer to fetch the compressed (354 kbyte) version 8044.ps.Z

This is not a permanent repository - the files will stay until I need the space for something else (I don't expect that to be within the next month or two).

.73 Malcolm, g1lys, gqrp#3365

+

Malcolm Austen,	Tel: +44(0) 1865 273216
Oxford University Computing Services,	Fax: +44(0) 1865 273275
13 Banbury Road,	Email - malcolm.austen@oucs.ox.ac.uk
Oxford, OX2 6NN, England	WWW - http://sable.ox.ac.uk/~malcolm

+

From owner-qrp-l@netcom.com Thu Feb 2 04:55:23 1995
Date: Thu, 2 Feb 1995 14:33:03 +0700 (GMT)
From: Bruce Strong <hs0zbo@sura1.sut.ac.th>
Subject: Re: ARRL and QRP
Message-Id: <Pine.ISC.3.90.950202143230.13805C-100000@sura1.sut.ac.th>

On 31 Jan 1995, rohre wrote:

> Awhile back several of us lamented the listing of a popular QRP frequency for
> RTTY calling in Jan. QST.
>
> It behooves special interest groups to make their voices heard with national
> ham organizations. If you write or call in as a member, or have lists of
> officials as a member, perhaps your voice will be a little louder when you ask

> for QRP consideration, etc.

>

> And along those membership lines, I got an ARRL bulletin on their winter Board
> meeting down the road from me in San Antonio. Among some worthy things about
> RFI and looking into restrictions on hams in zoning; they also listed they are
> raising their dues effective April 1. So if you want your voice to be heard
> more economically, join or renew with ARRL before April 1.

>

Hmm... Seems I've heard something else about that date. It seems
to ring a bell somewhere.

bruce

From owner-qrp-l@netcom.com Thu Feb 2 13:29:03 1995

From: JEVERHART@cayman.vf.ge.com

Date: Thu, 2 Feb 1995 11:12:07 -0500 (EST)

Message-Id: <950202111207.22418a93@cayman.vf.ge.com>

Subject: RE: Class D & E amplifiers

Steve, you wrote:

> Has anyone on the list ever built a Class D or E amplifier ?

>

> I am interested in designing and building a Class D possible with
> IRF510 transistors for a 100% efficiency portable QRP transmitter.

>

> Looking for inputs as to any problems and/or solutions anyone has
> had with the Class D, i.e. was it difficult to tune, harmonics, etc.

>

> de stan AK0B

i have some experience in using a switching type transmitter. Some years ago RCA Broadcast Division had a product line of AM broadcast transmitters using switching techniques for high efficiency. They used a bridge circuit with banks of parallel connected bipolar transistors as the output amplifiers. These were driven by a high power square wave exciter and had roughly square wave Collector current waveforms. The output network was fairly high Q and rather narrowband to maintain spectral purity. AM was accomplished by pulse-width modulating the square wave drive to the final transistors. 5 kilowatt power levels were achieved with pretty good efficiency because of the switch mode operation and the fact that a high power modulator was unnecessary. In the application I was involved with, the transmitter was used at the 5 kw level at LF with FSK type modulation.

Some of the problems with this type of circuit are:

1. The driver for the final amplifier MUST supply a good square wave drive

signal. Poor rise and fall times cause inefficiency in the final amplifier. If common mosfets are used, this driver must switch into a high capacitance load. This wastes lots of power.

2. The output device(s) must switch very rapidly or there will be significant wasted power. Cheap low capacitance fast MOSFETs aren't as available as we'd like.

3. Single device output circuits can be complex to configure and tune to maintain good switching characteristics. Failure to do so results in poor output power, poor efficiency and potentially great sensitivity to load impedance.

4. Most high power circuits I've seen use some sort of bridge circuit. These are VERY sensitive to imbalance in drive, individual device characteristics and load impedance. Lack of care in maintaining correct imbalance results in device in the top and bottom parts of the bridge conducting simultaneously. This results in a short circuit across the power supply! Additional protective circuitry is mandatory to keep the transmitter from self-destructing in milliseconds - I've seen what can happen :-).

All of the above notwithstanding, I think that this may be a fertile field for investigation. Many of the problems above are as a result of the need for high power (100's or 1000's of watts). At the 5 watt level things may be more practical. Narrowband operation isn't too bad and SWR can be kept fairly constant.

Several years ago I saw mention of a fellow ham named Raab who collaborated with another engineer in Class D, E, and F techniques. I believe they had a company somewhere in Appalachia and published articles in IEE publications. I believe they also wrote a book on the topic. I have no further info beyond my recollections since our technical library here at work has degraded almost to the point where it is useless.

Lots of years ago I remember seeing an RCA Technical Note on (I think) shortwave broadcast transmitter using a square wave plate current. They drive the amplifier grid pretty hard to make the tube switch and used plate tuning resonant at both the fundamental frequency and the third harmonic to approximate a square wave in the plate circuit. Subsequent filtering between the amplifier and antenna removed the undesired harmonics. I'm not sure if this ever became a product.

The only other deployed switching transmitter type that I know of is used for government LF/VLF transmitters and uses banks of SCRs and exotic drive circuitry, power combining and tuning networks.

I'd be interested in sharing ideas with anyone else who knows of modern usage or wants to pursue the idea for QRP rigs.

72/73,

Joe E. N2CX

From owner-qrp-1@netcom.com Thu Feb 2 20:52:01 1995
Date: Thu, 2 Feb 1995 13:34:35 -0800 (PST)
From: Steven Wilson <randyw@crl.com>
Subject: RE: Class D & E amplifiers
Message-Id: <Pine.SUN.3.91.950202133400.23010A-100000@crl12.crl.com>

thanks for the very nice input, i hope to share some ideas as my
experimenting advances. agn tnx de stan ak0b

From owner-qrp-1@netcom.com Thu Feb 2 14:13:09 1995
From: CQC@aol.com
Date: Thu, 2 Feb 1995 11:43:25 -0500
Message-Id: <950202114324_10988349@aol.com>
Subject: CQC QSO Party Prizes

I am pleased to announce several prizes for the Colorado QRP Club Winter QSO
Party coming up February 19.

The top score in 1) single band, 2) multi-band, and 3) Novice/Tech will
receive a 1-year subscription to Worldradio compliments of Worldradio.

A random drawing will be held of all entrants with 6 or more QSOs. The
winner will receive a Lectrokit Spider, Jr. kit compliments of Lectrokit. Be
sure to send your logs (or contest summary) even if you only have a few
contacts. Not all prizes have to go to the big testers!

More contest news later.

72 and good luck,
Rich WOHEP

P.S. It's not too late to write for sample log and contest forms. Send
s.a.s.e. to Jim Pope, KG0PP, Box 31575, Aurora, CO 80041-0575.

From owner-qrp-1@netcom.com Thu Feb 2 09:41:38 1995
Date: Thu, 02 Feb 1995 08:46:45 -0500

From: Dan Puckett <af045@DAYTON.WRIGHT.EDU>
Subject: Digests and the Sunsite
Message-Id: <9502021346.AA27961@dayton.wright.edu>

John, N9NDH wrote:

>Help!
>I'm not allowed to subscribe to the list anymore,
>and whenever I try to get into the sunsite.unc.edu
>ftp, I'm always locked out. Says it can't find the
>remote directory. It only works about one or
>two times a week.

I get my DAILY.QRP dose from the sunsite. I have had almost no problems (there is no such thing as no problems). I suggest you double check the directory you are trying to use. I have seen it published wrong. The correct directory is /pub/academic/agriculture/agronomy. That is so long and clumsy that I have it programmed into a macro key so I don't have to key it in every time. Don't forget the 3DAY.QRP digest on Monday morning. It makes it handy to catch the stuff you missed on the weekend (I don't have access on Sat. and Sun.).

I hope this helps.

73,
Dan, WD8AAU

From owner-qrp-l@netcom.com Thu Feb 2 13:05:25 1995
From: PeterWK8S@aol.com
Date: Thu, 2 Feb 1995 10:49:09 -0500
Message-Id: <950202104908_10956059@aol.com>
Subject: Digikey phone number?

Anyone have the phone number for Digikey? Or know another source for a Bar Graph LED driver LM3915? Oceanside showed it in their new catalog but decided not to stock it. It is a neat IC as it provides switched output to drive a bar graph led based on 3db changes to the input.... perfect for an S Meter. A circuit using this was described in QRPP June 94 issue for the NorCal 40. I was thinking about trying it on the Sierra. Has anyone done this on a Sierra? Any comments?

Pete WK8S

From owner-qrp-l@netcom.com Fri Feb 3 02:37:30 1995
Date: Thu, 2 Feb 1995 20:10:59 -0800 (PST)
From: Steven Wilson <randyw@crl.com>
Subject: Re: Digikey phone number?

Message-Id: <Pine.SUN.3.91.950202201015.21681A-100000@crl7.crl.com>

Digi-Key 1-8000344-4539

also check with Radio Shack they use to have these IC's.

de stan ak0b

From owner-qrp-l@netcom.com Thu Feb 2 16:35:43 1995
Date: Thu, 2 Feb 1995 08:34:52 -0800 (PST)
From: Monte Stark <ku7y@sage.dri.edu>
Subject: Fox Hunt
Message-Id: <Pine.SUN.3.90.950202075642.4207A-100000@nimbus>

Let me also echo what Bob had to say about the way he operates as the fox.

I call cq fox. I listen in the rx passband only. I don't use any filters if I am using the "big" rig so the passband is quite wide.

Sometimes around 7010 I will use the 500hz filter if the bc noise is too bad. So remember to zero on my signal.

I DO NOT listen for stations calling me. I look for clear spots to call cq from so I might hear you but that would take lots of luck!

I try to stay on for the whole two hours and to use both my call and the word "fox" as much as I can. When I am not working a station I try to not leave the frequency "empty" for more than about 10 seconds.

I also like to work the calling stations "contest style" meaning that we exchange only signal reports, locations (state) and names. All time spent chatting is time that my call and "fox" can not be sent. The less these are sent, the harder it is for stations to find me.

I also like to stay as close as I can to the posted frequency. If I show a range, say 7010 - 7020, I will try to stay as close to the lower frequency as qrm will allow.

Now that you all know how I will be operating on my next go as the fox, I hope to hear and work you all.

Gota run, 73's, Ron

.....KU7Y.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Sun Valley, Nevada....
.....ARRL.....NorCal #330.....NRA LIFE.....

From owner-qrp-l@netcom.com Thu Feb 2 13:40:22 1995
Date: Thu, 02 Feb 1995 11:30:55 -0600 (CST)
From: Jeff Gold <JMG@tntech.edu>
Subject: FS-> soon: Oak Hills Explorer
Message-Id: <01HMKM6K406QCP32AI@tntech.edu>

All,

I have a very carefully assembled Oak Hills Explorer that I am currently finishing up a review on. In a few weeks it will be for sale if anyone is interested. It is for 20 meters and works great.

72

Jeff, AC4HF

From owner-qrp-l@netcom.com Thu Feb 2 16:47:31 1995
Date: Thu, 2 Feb 1995 08:27:11 -0800 (PST)
From: Steven Wilson <randyw@crl.com>
Subject: High Efficiency Class D and E "RF" Amplifiers
Message-Id: <Pine.SUN.3.91.950202080937.323A-100000@crl5.crl.com>

References:

WA0ATT, Frederick Raab's article in 'Ham Radio' October 1974,
p 8 to 29, "High-Efficiency RF Power Amplifiers"

Summary: Includes circuit for 80, 40 and 20 meter transmitters.
with Efficiencies of 92 to 97 percent.

Text Book:

'Solid State Radio Engineering' ISBN 0-471-03018-X
Published by John Wiley & Sons in 1980

Numerous IEEE publications since the 1960's

Used by Commerical Broadcast Equipment Mfg for AM transmitters.

Some technical info on amplifiers. I believe that only a Class A amplifier will pass the full 360 degrees of a sine wave. A Class C distorts very badly and then requires the tuned circuit to remove the

harmonics and create the new sine wave. So this problem is not new to Class D design.

A Class D amplifier using two transistors allow 1/2 of the sine wave (180 degrees) to be passed by each. Due to turn on times and saturation voltages of the transistors the efficiency will in practice be less than 100%, but not much. The tuned circuit should have a Q of 5 or greater to reduce harmonics. Same is true of a Class C stage.

I think it should be obvious why a QRP station would want to run a Class D amplifier with solar and battery powered stations.

I hope that answers some of the questions that have been raised. Still looking for someone, must be at least one QRP op in all of the RF design labs in the country that monitors this list who has some actual operation experience.

de stan AK0B

e-mail via randyw@crl.com

From owner-qrp-l@netcom.com Thu Feb 2 21:16:08 1995
From: JDuffy@aol.com
Date: Thu, 2 Feb 1995 19:34:37 -0500
Message-Id: <950202193435_11303485@aol.com>
Subject: Re: Internet

Byron,

For great Internet service, call Netcom at 408-983-5950. They offer a free GUI (one of the best) and full Internet services. Only \$19.95 a month for 40 hours of prime time usage and unlimited non-prime usage.

You're right, though, I use AOL for mail, and Netcom for everything else.

Regards,

Duffy - WB8NUT

From owner-qrp-l@netcom.com Thu Feb 2 10:06:29 1995
Date: Thu, 2 Feb 1995 18:56:17 +0700 (GMT)
From: Bruce Strong <hs0zbo@sura1.sut.ac.th>
Subject: Re: Lightbulb anecdotes (relayed)
Message-Id: <Pine.ISC.3.90.950202185117.14955A-100000@sura1.sut.ac.th>

On Wed, 1 Feb 1995, RICHARD HIEBER wrote:

> Hi gang,
>
> I am currently subscribed to the HAM-TECH mailing list, also on
> netcom.com. The following mail exchange might be interesting for
> QRP-L, too, in spite of the ridiculously high amounts of power
> involved :^)
>
> Richard, DL8MFQ/AA8CP
> sz0026@daphne.rrze.uni-erlangen.de
>
> -----
>
> Date: Tue, 31 Jan 1995 16:08:07 +0700 (GMT)
> From: Bruce Strong <hs0zbo@sura1.sut.ac.th>
> To: Mills <ajm002@chief.morningside.edu>
> Subject: Re: J-poles
>
> On Mon, 30 Jan 1995, Mills wrote:
>
> > I was wondering if anybody could help me with one pretty simple question.
> > Status: 0
> > X-Status:
> >
> > I hav made a j-pole out of 1/2" hard copper pipe. But, I only made the long
> > mast 37 1/2" long. Will it still work ok or does it have to be the full 54"?
> >
> > Any input would be greatly appreciated.
> >
> > Thanks
> > Andy Mills
> > KB0OSX
> > ajm002@chief.morningside.edu
> >
> I know this will sound over simplified and like I'm making fun, but
> I'm not.
> so, my suggestion is: try it and let us know.
>
> I am now in Thailand, but when I was on Guam, (AH2AK), I once used
> a 100 watt light bulb, indoors, at floor level (6 inch mount in a
> room sunken 6 inches) and made a contact with Japan, about 1500
> miles away. I received on a 3 element beam, but used the light
> bulb for the transmitter.
>
> so, my answer is: try it and see.
> bruce
>
> -----

>
> Date: Tue, 31 Jan 1995 9:49:43 -0600 (CST)
> From: "Jack GF Hill - Sysop [HOME]" <root@jackatak.theporch.com>
> To: ham-tech@netcom.com
> Subject: Re: J-poles
>
> [...]
>
> > I am now in Thailand, but when I was on Guam, (AH2AK), I once used
> > a 100 watt light bulb, indoors, at floor level (6 inch mount in a
> > room sunken 6 inches) and made a contact with Japan, about 1500
> > miles away. I received on a 3 element beam, but used the light
> > bulb for the transmitter.
> Interesting anecdote, but, I seriously doubt that your contact was on
> 146MHz, the frequency of apparent interest to Mr. Mills...
>
> That out of the way, let's examine, briefly, the anecdotal evidence of
> long haul contacts using normally inefficient or unworkable antenna
> solutions. The operative phrase to consider in *ALL* such stories is the
> "I *once* used..." (emphasis mine)
>
> Keep in mind that once the RF leaks out of your transmitter, whether it
> leaks into a highly efficient antenna array, or into a dummy load, it
> wants to find a receiver somewhere! This phenomena was not well
> understood when I was a frustrated novice, but as I have been in the
> hobby longer, I am more and more aware of this. ;^) (I am not so sure of
> it as to give it my name, however! ;^)
>
> At any rate: I have worked, *ONCE* a station in Nova Scotia from Central
> Maine using a 100 watt light bulb on 75 meters. With a prodigious tuner
> and a short length of wire, I worked the Georgia Single Sideband Net
> using a plain Slotted Screwdriver with a 7 inch shaft clamped in a vice.
> Again, *ONCE*...
>
> I think these are aberrations, and not the norm. For someone to depend
> upon such a configuration is to overlook the concept of irreproducible
> results! ;^)
>
> So, operate on. Enjoy the hobby, and don't swallow all the *one time I*
> stories you hear...
>
> As for the J-Pole: if it works, please stop worrying and enjoy it. Many
> times the theory that says a dimension must be x is for "free space" and
> can not account for the reactive effects of nearby objects, ground
> quality, soil conductivity, location of true RF ground, and so on... It
> takes *understanding* of the theory to recognize how and why a one-shot
> anomolous event happens, and why it might not be reproducible, save at
> the same time in the same place.

>
> And that's my \$0.02 ;^)
> --
> 73
> Jack, W4PPT/M (75M SSB 2-letter WAS #1657/#1789 -- both from the mobile! ;^)
> Jack GF Hill |Voice: (615) 459-2636| Ham Call: W4PPT
> P. O. Box 1685 |Modem: (615) 377-5980| Bicycling and SCUBA Diving
> Brentwood, TN 37024|Fax: (615) 459-0038| Life Member - ARRL
> root@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
>
To Jack, W4PPT/M (75M SSB 2-letter WAS #1657/#1789 -- both from the
mobile! ;^)

re: 100 Watt Light Bulb Transmitting Antenna Experiment

The principle is "try it and see". It was called experimentation when I was in science classes at school. Learning by observation, a principle long honored in science, or so I was led to believe.

An antenna system can be a bit less than optimal and still perform adequately for hobby use! Just because the example does not specifically equate to the problem does not mean that it contains no useful information, either. If I can drive a car I can probably drive a tractor, though, admittedly, not as well as someone who has training and experience in tractors, but I can get it from one place to another.

My 100 light bulb transmitting antenna was not expected to be a 'normal' operation nor one that I would use fairly often. It was a one time experiment from the get-go. I had a perfectly good 3 element multiband yagi sitting in the backyard that I used daily, and, indeed, in this experiment, used for receiving. However, that said, this was the first and only test of the 100 light bulb transmitting antenna and it worked the first (and only) time it was tried. The signal report was 439 - and, because I connected the light bulb in a fairly cavalier fashion (I made no allowances for resistance variance with temperature changes) I blew 5 fuses during the contact. I learned that the light bulb wire has decreasing resistance when it gets warm and glows!

I made no claims that this is an optimal system or that it is something that I used daily. I clearly said 'once'. In that case it was an aberration. Different from the normal, daily use of my station. I do not accept that it was something that couldn't have been done by most anyone else at the time, had they been silly enough to try it. It was, admittedly, in a better part of the sun-spot cycle than now.

As for these type of stories being anecdotal. If your definition of anecdotal seems to be something that somebody else did, I agree.

It is anecdotal for you, as is most of science, I guess. If you mean anecdotal is a tall tale, I'll discuss that with you outside, at high noon! Just because I haven't written it up yet and submitted it to Kurt Sturba of _World Radio_ fame doesn't mean it didn't happen, and I take offense at your implication, intentional or not. It seems to me that 'world records' are something that someone did 'once'. Does that cast doubt on their achievements? Does that make them 'anecdotal'? I'm not claiming any record of any sort, except maybe being the most foolish ham on Guam at the time just try something different, but I did do it 'once'. But I tried it only once!

As for 146. Mhz., when I lived in the Seattle area I was located in a building 3/4 of which was underground and I could not have an external antenna. I used a 2 meter hand held and used both a mag. mount near the one window, and, often, the metal frame for the window as my antenna. Both worked to some degree, enough for me to contact stations in the area (as long as they were North of me!). Even using packet, a station through which I could digipeat to the areas pbb's. No, not optimal. Yes, used almost daily for over 6 months, while I was in the area. And, yes, frustrating at times.

My point is and remains: try it and see. You can have a lot of enjoyment with a less than optimal setup, and, if you are lucky, learn something at the same time. To off-handedly write off all such 'anecdotal' stories as being irreproducible, is often stupid. You learned to walk 'once'. Does that mean you can't ever learn again? Sometimes 'once' is enough. What you can do with a light bulb antenna will remain forever unknown until you are unwilling to get out the light bulb and give it a try! Some of us seem to believe what we think more strongly than what we observe than what we experience. Science is an experiential endeavor now-a-days!

I guess, not having ever tried some of these things, you are in a much better position to know if they will work or not. I guess you read more than I do, or went to school longer. Or something like that. To me, I learned that 'one time' means _one_ time, not the norm. The use of the phrase, 'one time', precludes it being the norm, and, in effect, rellegates it to your aberration category. However, that doesn't mean that it is irreproducible by anyone who is willing to attempt the feat. It is, I agree, irreproducible by anyone who is unwilling to try or, probably, anyone who has a preconceived notion that precludes objective observation of the results. Afterall, there are many who still believe the world is flat and will ever so believe because they don't believe anyone who says otherwise and are unwilling to go to and see for themselves.

Bruce (just plain Bruce. I'm in the hobby for my personal enjoyment, not to impress anyone with my anecdotal accomplishments,

however insignificant they may be.)

From owner-qrp-1@netcom.com Thu Feb 2 14:34:26 1995
Date: Thu, 2 Feb 1995 10:03:37 -0800
From: faunt@netcom.com (Doug Faunt N6TQS 510-655-8604)
Message-Id: <199502021803.KAA10240@netcom2.netcom.com>
Subject: Mizuho/AEA QRP rig power mod

There seems to be some interest in the Mizuho/AEA QRP rigs, so here is a mod for them, that doesn't seem to be on any of the internet mod archives. I got it from the local packet mod server, with corruptions, and contacted WD8DAS for a correction, which is incorporated here. 73, doug

Modification of the AEA DX Handy Radios (Models MX-6S and MX-28S)
for Operation from External 12 volt Power.

1. Remove the four black screws and plastic washers holding the front panel to the radio frame. Remove the front cover by gently pulling it away from the radio frame. Watch out for the wires going to the speaker and microphone.
2. Remove the OPTION switch by unscrewing the tiny black screws mounting it to the bottom panel. Cut the white wire that goes up from the switch to the top of the board, and unsolder or cut the resistor going from the switch to the grounded transformer can nearby. The removal of the OPTION switch makes room for the installation of the ten volt regulator.
3. Locate a 7810 three-terminal regulator and bend its heatsink to fit against the bottom panel while the regulator sits parallel to the front panel. This means that the heatsink will have a 90 degree bend. Attach the heatsink to the bottom panel -- either with a tiny machine screw and nut, or by loosening the other hardware on the bottom panel, and slipping the heatsink between the layers of sheet metal. Then retighten the other hardware. I found that some versions of the 10 volt positive regulator come with a very thin heatsink that makes this sort of installation possible. The usual 7810 regulator heatsink is too thick, and screw/nut mounting is the only way.
4. Locate the orange wire running from the center pin of the external power jack (with diode installed) to the power switch. Cut this wire where it passes the new regulator, and solder the end from the power jack to the INPUT terminal of the regulator.
5. Install a diode (1N4003 or higher) on the OUTPUT terminal of the new regulator, anode toward the regulator (arrow pointing away from regulator,

in other words). Now attach the other end of the orange wire (going to the power switch) to the cathode of the new diode.

6. Nothing need be attached to the GROUND pin of the regulator if the heatsink is grounded well. If in doubt, add a wire from the GROUND pin of the regulator to the spot where the OPTION resistor was grounded to the transformer can.

How it works... The old diode on the center pin of the power jack protects against accidental application of reverse polarity. The incoming 12v goes to the regulator and is dropped to 10v. The new diode drops the 10v down to 9.3 volts (ideal for the radio), AND blocks drainage of the internal batteries by the new regulator.

Steve Johnston, WD8DAS @ K3WKK

September, 1990

From owner-qrp-l@netcom.com Thu Feb 2 17:57:12 1995
Message-Id: <199502022000.0AA12697@ns1.arlut.utexas.edu>
Date: 2 Feb 1995 13:56:32 U
From: "rohre" <rohre@msmailgw1.arlut.utexas.edu>
Subject: More on Class D Amplifiers

Stan, AK0B queried on their application to QRP RF.

I passed on what I knew from audio and sonar high power fields, and now Joe, N2CX has given a very interesting history of the RF side with lots of technical details.

He confirms what I just read on the high fi use of Class D or switching amplifiers in the February 1995 Audio magazine. They used to self destruct even in audio applications, and now Joe has shown why. The article is not technical really, and may enhance our knowledge of this subject.

72,
Stuart K5KVH

From owner-qrp-l@netcom.com Thu Feb 2 17:05:27 1995
Date: Thu, 2 Feb 95 12:21:51 -0600
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <9502021821.AA11422@chuck.dallas.sgi.com>
Subject: NE '79 Test

Gang,

Remember tonite (Thurs) is the first night of the month long contest for NE club. On 3.579MHz starting at 9pmEST to 10pmEST work the gang from the NE club and their xtal controlled (you have to be on freq) QRP transmitters.

Hope this makes it in time. My 40M post took 24hrs to get here. :-)

I'll be on 80M tonite. I have a crystal for 3.579545 MHz (thanks Jason). Will be on later with NN1G rig also (up in freq as W1AW starts up at 10pmEST near the freq).

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Thu Feb 2 21:25:59 1995
From: CQC@aol.com
Date: Thu, 2 Feb 1995 18:08:25 -0500
Message-Id: <950202180555_11245530@aol.com>
Subject: Need help

Does anyone know the Email address for C. Detlef Reimers of Hamburg, Germany, the author "Analog" a postscript font for keyboard circuit diagraming? I think he may be on Compuserve.

Rich High WOHEP
CQC@aol.com

From owner-qrp-1@netcom.com Thu Feb 2 22:06:37 1995
Date: Thu, 2 Feb 1995 18:21:53 -0800
From: dgf@netcom.com (David Feldman)
Message-Id: <199502030221.SAA22825@netcom14.netcom.com>
Subject: New QRP+ - first impressions

Well, the QRP+ arrived today after being back-ordered for about 8 weeks. Not bad (considering Ten-Tec backordered me 6 MONTHS on the 1280 kit!). The only rub here was getting "two-weeked" for two months, but then again Ten-Tec did exactly the same thing on the 1280.

Most people glow over the QRP+. I'll report the less-good news too. None of these are show-stoppers, but they are worth mentioning...

1. The rig is somewhat microphonic. If you tap the case and are listening to CW, you definately hear the artifacts. It's not terrible, but it's the only rig I've had that does this.
2. The cabinet has a pretty severe resonance right around the peak frequency of the CW filter. That is, there is a secondary audio raspiness emitted from the cabinet itself right at some tone frequency when the audio gain is not kept very low. I suspect this can be fixed by properly padding the speaker mounts. The speaker is ample at max volume (save for the resonance) and sounds OK but not great.
3. There is no support for "opposite" sideband. You get the "normal" sideband typical for the band in question. I looked at the schematic and can't see why he didn't include opposite sideband support. Sometimes you want to listen to this stuff! This one bugs me bigtime.
4. The AGC recovery time is pretty slow, and can't be adjusted by front panel controls. I prefer faster, particularly in a contesting situation. This one bugs me too.
5. There is a really strong "thump" when the AGC attacks on a strong received signal. Even my Argonaut is not as bad in this. It's livable, but I think the AGC capacitor charging circuitry probably is too-high impedance.
6. I really wish there was a means of lighting the front panel meter and frequency readout. It would not have cost much, and would make the rig usable in poor-light or poor-eyesight situations.
7. The arrangement of the front-panel button for "fast" tuning is not optimal. For a right-handed operator, you pretty well need two hands to tune in the "fast" mode. Either he should have made the button "latching" (hold it down for a few seconds and it stays in the fast mode hands-off) or repositioned it on the lower-right corner of the button array. Either would be an easy firmware fix.
8. There is no Noise Blanker. I realized this up-front, and perhaps due to the 50 MHz single-conversion IF it can't be done easily, but I really do miss the NB. The electric fence across the street is plainly audible.
9. If you inadvertently hit the "memory" button even briefly you lose your current frequency. I suspect I'll get used to this, but there is a tendency to push buttons without watching and this one has bit me several times already. Perhaps the second hit on the memory button could restore the VFO frequency.
10. I think some people have complained of poor transmit audio. As far

as I can tell, the rig does fine with full 5W PEP output, but the mic gain has to be run up pretty far with my run-of-the-mill dynamic hand-mic. I do wish the mic gain and CW sidetone controls weren't recessed; there is no decent reason why not to let them protrude from the back panel slightly just like the CW speed control. P.S., I'm using a really cute little hand-mic that came with an old TRIO 2200 2M FM rig of 1972 vintage. Too cute!

11. The use of memories as a band-switching mechanism is at first a bit counter-intuitive, but it really seems like it will work out well.

12. The front end drives the mixer directly. I can definately tell the reduction in gain on the higher bands, altho I'm not too worried about this. The catch here is I have antennas well up in the air. If I had a marginal antenna, I might not be so satisfied with receiver gain. Actually, the pathway from the antenna to the speaker is _remarkably_ straight-forward (antenna->TR->mixer->IF->BFO->audio!)

13. The variable bandwidth filter is plain AMAZING. I use a TS940 for contesting, and this is the first rig that handles narrow-bandwidth SSB as well. He seemed to take some care to center the filter passband appropriate for SSB in narrow modes; even down to 800 Hz bandwidth the received SSB is understandable. This is definately one of the strong points. THIS FILTER IS WORTH THE PRICE OF ADMISSION!

14. I wish he offered an RS-232 control port. It would not be that hard given the existing microprocessor in the rig. Perhaps we can hope for a "MARK II" model with this and other enhancements. I'll certainly be game.

All things considered, I am pleased with the rig. It's a keeper for sure. I won't pitch my Ten-Tec Argonaut, but this rig is clearly a forward evolution. The rough spots are all minor, and this rig has PERSONALITY, which sets it apart from the rice boxes we get from the big three. This is a unit I'm certain will be sought after cult-style in 10 or 20 years, like the Argonaut is now. He definately stole some thunder from Ten-Tec. Will our friends in Sevierville respond in kind?

Sorry for the bandwidth, but I had several people ask for my impression so I thought I'd post it while it's fresh in my mind.

By the way, the rig is SERIAL NUMBER 0385.

73 Dave WB0GAZ dgf@netcom.com

From owner-qrp-l@netcom.com Thu Feb 2 22:58:57 1995
From: PDouglas12@aol.com

Date: Thu, 2 Feb 1995 14:51:29 -0500
Message-Id: <950202144650_11111112@aol.com>
Subject: NW80/20 for 40m review

Internet QRP-L Report Form
(Modified)

MFR: Dan's Small Parts and Kits

ADR: 1935 So. 3rd West No. 1, Missoula, MT. 59801

TEL: 406-543-2872

DESIGNER: Roy Gregson W6EMT 13848 SE 10th St., Bellevue, Wa 98005

MODEL: NW80/20 (Northwest 40m tested)

SIZE: 3" x 5 1/4" x 5 7/8" Radio Shack #270-253A (included, but not drilled/punched/or labelled)

WEIGHT: Heavy, guessed at 3lbs, partly due to heavy gauge steel of cabinet top making package very sturdy.

PC board: Single sided, Silk Screened, perfect fit in above cabinet

MANUAL: 22 Pages, quite excellent with few errors. Construction is step-by-step with modular circuit assembly of subcircuits, tested in stages, giving the builder a great sense of confidence in the probability of success at completion.

POWER: 12-13.6VDC

RX Current: 46 ma @ 13.6; 43ma @12v

TX Current: 1.1A @ 13.6 for 5w; 950 ma @12v for 3.5w (will put out 5w at 12v, but would then exceed 5w at 13.6)

MODE: CW

KIT: Yes. Complete--builder will likely want to throw out RCA chassis mount jacks in favor of 1/4" and 1/8" jacks and the crummy DPDT slide switch for AF filter will routinely be junked for a toggle by most builders. That switch is unworthy of the rest of the kit.

BANDS: Monobanders available on any single band: 80, 40, 30, 20.

VFO: 2.8-3mHz. reduction cap with nice brass dial collar with clear plastic/red line pointer. Builder makes dial lines/markings on face of cabinet. (Try white contact paper with rub off lines and numbers, covered with clear contact paper--neat, good looking and no spraying.)

DRIFT: Not measured, and none noticed.

RX: Superhet, discrete VFO->602->xtal fil->1350->602->386->AF filter

TX: 5w++ (will go to 7-8w at least, if you want it) bd mtd pot for 0-5+watts w/builder supplied panel mounted power control pot option

FILTERS: 4 pole xtal and switched AF

SELECTIVITY: not meas. est 1000 or 400 w/ AF fil on.

RIT: Yes

GAIN: AF only

AGC: No

PREAMP: No

ATTEN: No

SPKR: Drives a 5" easily and LOUD (Builder supplies the speaker)

METER: Yes, but...this is a relative power meter only, no sig meter (no AGC, so no sig voltage available) and hardly worth the effort to cut the cabinet to

fit the meter. Meter was used for construction testing, and was useful there.

Notes: I am the kind of consumer sellers must dread. First, I have no hesitation corresponding, writing, and complaining, and I generally make a pain in the ass of myself with kit makers. My NW 40 worked off the bat, but I didn't like the very loud thump on changeover to receive. I worked with Roy, W6EMT, the designer who couldn't have been nicer or more concerned, and he eventually created a gimmick cap to cure my unusual problem. (Created by my ignoring cabinet templates and putting controls in such positions that inductive loops were created.) I paid Dan's the \$3.00 he asked for a look-see copy of the manual (refundable against an order), and the manual sold me. One part I liked was that the manual includes Roy's address for kit problems. (Cost: \$25 ppd which seems very fair to me.) Every kit builders nightmare is a dead radio at the end of 30 hours of work with no one to help rescussitate the lump. That is always my fear with Radiokits, even though I really like their tiny size and overall performance. This kit will outperform everything in its price range, and I include even the venerable and excellent OHR kits in this price class (which lose on excess size, receive audio and 2watt output)

Price of this kit is \$99.95 + 3.75 postage. Don't go for the stripped \$70 version as it does not include the very good AF filter, nor the meter, case, knobs, dial collar etc, all of which are good, and worth 30 bucks.

Dan's doesn't take phone orders because they don't accept plastic money. You have to send him a MO or check (They may wait to clear the latter so MO is fastest.)

From owner-qrp-l@netcom.com Thu Feb 2 16:56:29 1995
Message-Id: <199502022011.0AA13032@ns1.arlut.utexas.edu>
Date: 2 Feb 1995 14:09:22 U
From: "rohre" <rohre@msmailgw1.arlut.utexas.edu>
Subject: RE: Portable 20/40 antenna?

Bob, I would think you could get the short Outbacker diagonally and parallel to glass in the rather large train widow glass, and the metal of the train car makes a fine ground plane! Any loaded whip, that or Hustler will work better if you can throw out some quarter wave counterpoises of hookup wire. I don't think they would want you sticking anything out at right angles to the train window assuming it opens. I used a helical whip on a 3 mile miniature train ride in 1963 to give the engineer CB communications back to his office and shop. It is hard to get much efficiency on those small cars as your ground! That was QRP AM!

What train are you going on? You might get permission if it is a private excursion car, to mount something temporarily atop the car; but it would have to be close to the roof. Would work in near vertical incidence skywave mode, (NVIS) and be good to a few hundred miles at least. And would need a tuner.

To: qrp@Think.COM
>From: Robert Penneys on Wed, Feb 1, 1995 11:01 PM
Subject: Portable 20/40 antenna?
RFC Header:Received: by msmailgw1.arlut.utexas.edu with SMTP;1 Feb 1995
23:01:24 U
Received: from mail3.netcom.com (root@mail3.netcom.com [192.100.81.127]) by
ns1.arlut.utexas.edu (8.6.9/8.6.9) with ESMTP id XAA00371 for
<rohre@arlut.utexas.edu>; Wed, 1 Feb 1995 23:00:54 -0600
Received: by mail3.netcom.com (8.6.9/Netcom)
id FAA00577; Wed, 1 Feb 1995 05:02:22 -0800
Received: from mail.think.com by mail3.netcom.com (8.6.9/Netcom)
id FAA00571; Wed, 1 Feb 1995 05:02:20 -0800
Received: from Think.COM by mail.think.com; Wed, 1 Feb 95 08:03:04 -0500
Received: from brahms.udel.edu by Early-Bird.Think.COM; Wed, 1 Feb 95 08:03:02
EST
Received: (from penneys@localhost) by brahms.udel.edu (8.6.8/8.6.6) id IAA24892
for qrp@think.com; Wed, 1 Feb 1995 08:03:00 -0500
Date: Wed, 1 Feb 1995 08:03:00 -0500
>From: Robert Penneys <penneys@brahms.udel.edu>
Message-Id: <199502011303.IAA24892@brahms.udel.edu>
To: qrp@Think.COM
Subject: Portable 20/40 antenna?
Content-Length: 427
Sender: owner-qrp-1@netcom.com
Precedence: list

I have the MFJ 40 and 20 meter xcvrs, and their folded dipole for 20.

I want a portable antenna for 40 and 20 that I can put up in the woods
or on the beach. Also, we may be taking a long train ride and I wonder if
a whip a la Hustler will work without a ground plane.

Any ideas? Tnx Bob

Bob Penneys, WN3K Frankford Radio Club N.E.R.D.S.
Internet: penneys@brahms.udel.edu Work: Ham Radio Outlet, Delaware

From owner-qrp-1@netcom.com Thu Feb 2 16:32:49 1995
From: CQC@aol.com
Date: Thu, 2 Feb 1995 11:39:04 -0500
Message-Id: <950202113859_10988532@aol.com>
Subject: QRP from Easter Island?

I got a note from Yardley Beers, W0JF, CQC #57 stating he will be going to

Easter Island (CE0). He has applied for a license back in November and is anxiously awaiting the ticket before his departure date of Feb. 10.

If the ticket arrives in time, he will operate from Easter Island from Feb. 12-17. Times unknown because of his other activities there (he is going with a group from Yale, it is not a DXpedition). He plans to operate 14.060 and 18.080 QRP frequencies plus some activities below 14.025. He will be using a wire antenna with his Ten-Tec 556 Argo.

If his ticket arrives in time, I will post the call here on qrp-l. Let's keep our fingers crossed for Yardley.

72 es good DX
Rich W0HEP

From owner-qrp-l@netcom.com Thu Feb 2 15:21:46 1995
From: N5EM@aol.com
Date: Thu, 2 Feb 1995 14:18:03 -0500
Message-Id: <950202141624_11091566@aol.com>
Subject: Re: Receiver for General Use

Dan,

I will let others comment on the merits of the Radio Shack receiver sale. I have found that older consumer SW receivers almost always leave quite a bit to be desired for ham purposes. For example, with tax the DX model will be \$175. That's about the going price for a Drake 2B and 2BQ combination. A description of that combo is too long for now, but it was state of the art for 20 years in receiving. Now, it was not solid state, but it was state of the art. Some tubes, some transistors. One that is in very good condition for about \$175 would make a receiver you would never let go. It is somewhat large, but what a pair of ears. Other older gear is also available but you REALLY need someone local who will take it upon themselves to make sure you get a good piece of used gear and not a piece of junk.

As to test equipment, one could talk for hours, but since you are predisposed to build your gear, the best advice I can give you is to get a copy of Solid State Design for the Radio Amateur, from the ARRL by DeMaw and Hayward.

Still, the Bible of the QRP'er with enough homebrew test equipment to keep you bench busy for months. Plus, it will teach you how it all works.

As to counters, they have gotten so cheap that I wonder if building one is worth the effort today. Look at the adds for the pocket counters that work to 1.3 ghz. Price is hard to beat. Maybe that should be one special piece you save up for, but not until you have the basic gear of a ham shack, ie, good receiver and transmitter.

We could discuss this face to face for days and not get through!

72/73

Ed Manuel - N5EM
n5em@aol.com
Houston, Texas

QRP - Its a state of mind, not just a power level.

QRP ARCI #4914, G-QRP #1243, NORCAL #498

From owner-qrp-l@netcom.com Thu Feb 2 11:14:42 1995
Date: Thu, 2 Feb 1995 07:22:35 -0800
From: n1list@netcom.com (Michael L. Ardai)
Message-Id: <199502021522.HAA19886@netcom4.netcom.com>
Subject: Re: Re[2]: Donations (voluntary) to Cover the Costs

Note: This discussion is **not** about qrp-l itself. I am not sure what the BA is, but they are talking about some other list. I am running my 13 lists as a way to give something back to the Ham community.

73,
/mike
n1list@netcom.com
Maintainer, BARC lists

From owner-qrp-l@netcom.com Thu Feb 2 16:42:04 1995
Date: Thu, 02 Feb 1995 13:17:54 -0500 (EST)
From: CEBIK@utkvx.utk.edu
Subject: Re: Re[2]: Donations (voluntary) to Cover the Costs
Message-Id: <Pine.3.89.9502021343.A541519513-0100000@utkvx.utk.edu>

On Thu, 2 Feb 1995, Michael L. Ardai wrote:

>
> Note: This discussion is **not** about qrp-l itself. I am not sure what the
> BA is, but they are talking about some other list. I am running my 13 lists
> as a way to give something back to the Ham community.
> 73,
> /mike
> n1list@netcom.com
> Maintainer, BARC lists
>

My reply, for all to hear is this:

BRAVO! BRAVISSIMO!! AND THANK YOU!!!

-73-
LB, W4RNL

From owner-qrp-1@netcom.com Thu Feb 2 17:37:36 1995
Date: Thu, 2 Feb 1995 08:10:00 -0500
From: "david (d.) burniston" <davidgb@bnr.ca>
Message-Id: <"7560 Thu Feb 2 08:11:23 1995"@bnr.ca>
Subject: re:Re[2]: Donations (voluntary) to Cover the Costs

Hi...

Did I miss a post about contributing financially to the list? Have been getting about 20 e-mails a day and don't recall anything about this.

Thanks... Dave

=====

Dave Burniston,	Bell Northern Research	Ottawa, ON Canada
VE3LFO	ph.(613) 765-3579	
NORCAL 434	*** All opinions are strictly my own. ***	

=====

From owner-qrp-1@netcom.com Thu Feb 2 20:37:48 1995
From: lhalliday@creo.bc.ca
Date: Thu, 02 Feb 95 14:15:28 PST
Message-Id: <9501027917.AA791763572@mail.creo.bc.ca>
Subject: Re[2]: Receiver for General Use

As the owner of a DX-380 (aka Sangean ATS-808, and a handful of other aliases) - it's a great radio for general SWLing, especially when I travel, since it fits easily in my luggage. It has been to 4 countries with me, and travelled 10s of thousands of kilometres.

For ham use it needs a BFO desperately, but buying a DX-390 for the purpose is not something I'd recommend - it's a lot more money for a BFO in a radio that doesn't otherwise perform as well. My plan (now that the radio is off warranty :-)) is an external synchronous-cum-product detector, like the one that was in QST in 1993. Frequency stability is not an issue, but the 1 kHz tuning steps will be for CW, and especially for SSB. The synthesizer phase noise and image rejection are not up to the most demanding standards, but fine for what you pay for the radio. The "narrow" bandpass is very wide for anything other than AM - but once you have a product detector audio

filtering works almost as well as IF filtering...and audio filters are fine construction projects!

If the radio doesn't need to be all that portable, I agree with others on the list: buy an older used communications receiver, like the FRG-7 I bought at a flea market last year (look in the February magazines - hint hint :-). It's fairly light, but kinda bulky for portable operation.

73 from Burnaby,
laura VE7LDH

From owner-qrp-l@netcom.com Thu Feb 2 02:36:14 1995
From: "Doyle, Ron" <doyler@uh2297p01.daytonoh.NCR.COM>
Subject: SSB Fox Hunt Results from the fox.
Date: Wed Feb 01 09:17 EST 1995
Message-Id: <2F2F980B@sdwinb.daytonoh.ncr.com>

What a rush!

Tuesday was a challenge for me from the start. The car overheated going to work and I managed to limp along until I could get it home that eve. I figured since I got home about 5:00 I had about 4 hours to fix my car. 9:00 rolled around and I was still working on it. Why should changing a thermostat be so hard? I also carefully dropped a very important bolt (which one isn't?). My 2 kids were great through the who mess. They got their own supper and even made me some. They wanted me to get done so I could help them with their homework. Didn't get to help much and I'm really sorry about that.

On to the fun stuff.

I left the car in worse shape than I started and began warming the clouds just a tad past 0200z. First contact was N4IDA, Al in Broken Arrow OK followed by brother Don, KC5EQC also in Broken Arrow. The surprising thing here is that we try to make a regular contact on weekends running QRO and don't get much better results. They were both weak with Al a 33 and Don at 44. Hmmm, they are only about 3 blocks apart.

Called a bit more then changed frequencies at 0230 and Paul AA4XX called with a 44 on both sides. About 10 minutes latter Dan, WD8NID from about 10 miles away called with a 44 on both sides. Had to be ground wave working for us here.

Things slowed down (read quit) and I made my band switch at 0300z. 80meters was looking real busy. Found me a spot at 3786.5 and began calling. The

path to North Carolina became pretty strong. I started out with Dave, WA4NID from Durham, NC and then bounced back to Cincinnati with Jim NU8N.

So to keep this kind of short, I had contacts in Ontario, Alabama, New York, Connecticut, North Carolina, Ohio, and Oklahoma. The surprises were Ohio and Oklahoma and at about 0400z the path to NC became as good as being direct connect.

This was a lot of fun. There were times when I thought I heard someone calling but just couldn't pull them out. I want to thank everyone who made contact, and who tried but couldn't, for making the SSB fox hunt so much fun.

Here is my log. Please let me know if I butchered any information.

0218	n4ida, al	33	35	7229 Broken Arrow, OH
0221	kc5eqc, Don	45	35	7229 Broken Arrow, OH
0235	aa4xx, Paul	44	44	7210
0245	wd8aaau, Dan	44	44	7210 Dayton, OH (abt 10 miles)
0310	wa4nid, Dave	44	44	3786.5 Durham, NC
	nu8u, Jim	44	59	Cincinnati, OH (abt 60 miles)
	kc1fb, Jim	56	56	Norwalk, CT
	w3pm, Gene	56	56	Huntsville, AL
	w1lfl	59	55	Raleigh, NC
	dd4ze, Warren	56	56	NC
0313	wa8fan, Eric	48	48	Ashland, OH (abt 200 miles)
0314	ab4el, Steve	59	48	Raleigh, NC
0315	kf8ee, Ed	59	48	Loveland, OH (abt 60 miles)
	ve3vaw, Brian	44	58	Ontario, Canada, Argo 509
0324	n2kpy, Peter	33	33	Huntington, NY
	wd8aaau, Dan	55	56	1st contact on 40m
	n7ev??	22		not complete but I sure wanted it! To bad:((
0327	ve3t?h			Another incomplete one, He was do good too:((
	wv1c, Tom	56	55	Trumbull, CT

No more new contacts.

0338	ab4el	55	59+	3907 Its crowded here! Lots of QRM.
0348	dd4ze	44	59	
0352	ab4el	9	59	Band opened up into NC, big time.

From owner-qrp-1@netcom.com Thu Feb 2 05:02:02 1995

From: ab4el@cybernetics.net (Stephen Modena)

Message-Id: <9502020758.AA17870@cybernetics.net>

Subject: SSB Fox hunt. Correction. ?????? Huh?

Date: Thu, 2 Feb 1995 02:58:18 -0500 (EST)

[Ron Doyle]

> DR>Boy was out of it. I didn't even put a date! I will on Tuesday evening and
> DR>all times are est. For those who like zulu, its Wednesday Feb.1 starting at
> DR>0200z. Remember thats Tuesday evening for us folks in America or there
> DR>bouts.
> DR> Ron Doyle, N8VAR

[Brian Carling]

>
> WHAT! Sheesh! You mean I spent hours looking for you last night
> and you weren't even ON!?
> This is nuts! It was sent out as 0200 UTC on JANUARY 31st Ron!!!!

Let's look at what I (_moi_) the *Official* SsbQrpFoxHuntMeister sent
to the list *ahead* of Ron's personal posting to the list:

>From owner-qrp-l@netcom.com Mon Jan 30 05:27:41 1995
>From: ab4el@cybernetics.net (Stephen Modena)
>Subject: My Fox hunt Schedule for Jan 31.
>Date: Mon, 30 Jan 1995 03:10:01 -0500 (EST)
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

[I sent it in plenty of time. :^)]

>SSB FOX HUNT -- TUESDAY 31 JAN EASTERN TIME
^^^^^^ ^^^^^^^

>Just below is the email I received from Ron N8VAR, the SSB QRP
>Fox for this week. Please note that the CW QRP Fox, KI0G, is
>running 31 Jan *UTC*...which is tonight MONDAY.

[Did I anticipate that *some* people would be befuddled looking
at the CW schedule and the SSB schedule---both saying 31 Jan--
but expressing it in two *different* clock systems? I certainly
had a few moments of confusion that we might be double-timing it
again like last week...]

>Ron has chosen to
> ===== Ron's Schedule Follows =====

Tuesday Evening 31 January 1995
^^^^^^

[There it is again. I said it out plainly to be really sure.]

I'll try to make it even clearer this coming week.

CALLING N2KPY!!

CALLING N2KPY!!

Be sure you send me a private email this week telling me what you plan for your turn next week as the SSB QRP Fox.

--

73/Steve/AB4EL ab4el@Cybernetics.NET in Raleigh, NC 35.81245N, 78.65849W

From owner-qrp-1@netcom.com Thu Feb 2 03:11:26 1995

From: qrmodena@csemail

Message-Id: <9502020719.AA110179@csemail.cropsci.ncsu.edu>

Subject: SSB QRP FOX was loud! [edited]

Date: Thu, 2 Feb 1995 02:19:32 -0500 (EST)

Oh! My spelling can get SO bad! Here is a sore point made better. :^)

>

> For the fun of it, I asked whether Warren is still listening...and

> he is: he's 44 here, and he and NU8U make an exchange...Warren is

> doing so well he doesn't both[er] cranking up his TS-450-S to [QR0]. :^)

>

> --

> 73/Steve/AB4EL ab4el@Cybernetics.NET in Raleigh, NC 35.81245N, 78.65849W

Probably Warren doesn't even remember how to crank 100 W...it's been so long since he's felt the need to dissapaite (sp) that much waste heat to the Universe-At-Large. :^)

--de Steve AB4EL

From saswel@unx.sas.com Thu Feb 2 11:16:23 1995

From: Warren E. Lewis <saswel@unx.sas.com>

Message-Id: <199502021549.AA00954@cardamom.unx.sas.com>

Subject: Re: SSB QRP FOX was loud! [edited]

Date: Thu, 2 Feb 1995 10:49:55 -0500 (EST)

Hey Steve!!

I was wondering about this when I read it...I knew what you meant!!

----- qrmodena@csemail.cropsci.ncsu.edu writes -----

>

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>

> >

> > For the fun of it, I asked whether Warren is still listening...and

> > he is: he's 44 here, and he and NU8U make an exchange...Warren is

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> >

> > --

a 40 M 2-element quad) to peak my signal...fiddled with his receiver...and did not give up.

Again and again I've experienced how great the DX ops can be at pulling me out of the noise floor: like it's a personal challenge that once they've heard you, they are going to get you!

--

73/Steve/AB4EL ab4el@Cybernetics.NET in Raleigh, NC 35.81245N, 78.65849W